

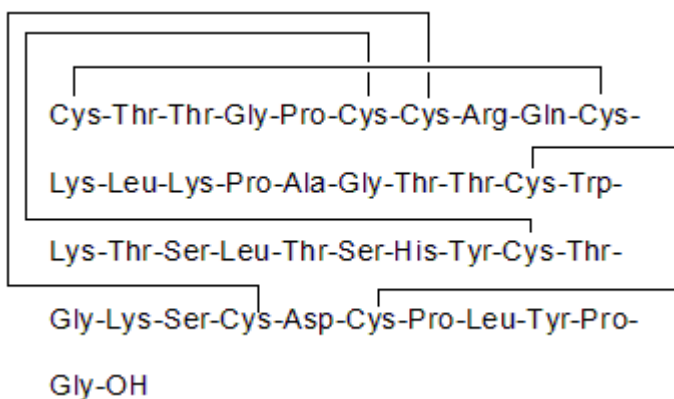
**Product Name:** Obtustatin

**Catalog No.:** 4664

**Batch No.:** 1

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>184</sub>H<sub>284</sub>N<sub>52</sub>O<sub>57</sub>S<sub>8</sub>  
**Batch Molecular Weight:** 4393.07  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 90%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 2 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:**



**2. ANALYTICAL DATA**

**HPLC:** Shows >97% purity  
**Mass Spectrum:** Consistent with structure

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**Product Name:** Obtustatin

**Catalog No.:** 4664

**Batch No.:** 1

**Description:**

Highly potent integrin  $\alpha_1\beta_1$  inhibitor ( $IC_{50}$  = 0.8 nM for  $\alpha_1\beta_1$  binding to type IV collagen). Selective for  $\alpha_1\beta_1$  over  $\alpha_2\beta_1$ ,  $\alpha_{11b}\beta_3$ ,  $\alpha_v\beta_3$ ,  $\alpha_4\beta_1$ ,  $\alpha_5\beta_6$ ,  $\alpha_9\beta_1$  and  $\alpha_4\beta_7$ . Inhibits FGF2-stimulated angiogenesis in the chicken chorioallantoic model. Displays antitumor efficacy in a synergistic mouse model of Lewis lung carcinoma; blocks human melanoma growth in nude mice.

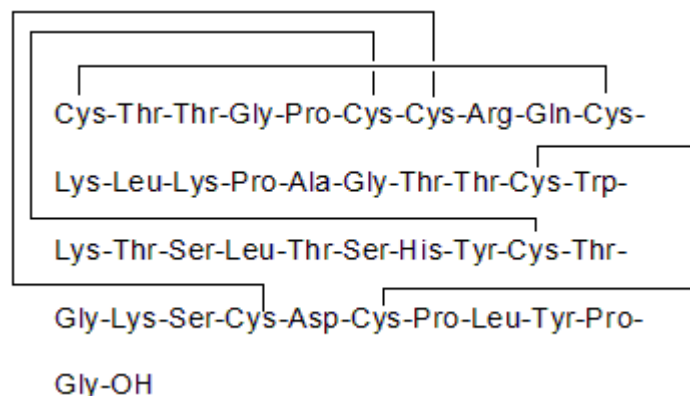
**Physical and Chemical Properties:**

Batch Molecular Formula:  $C_{184}H_{284}N_{52}O_{57}S_8$

Batch Molecular Weight: 4393.07

Physical Appearance: White lyophilised solid

**Peptide Sequence:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 2 mg/ml in water

**Net Peptide Content:** 90% (Remaining weight made up of counterions and residual water).

**Counter Ion:** TFA

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

**References:**

**Moreno-Murciano *et al*** (2003) Amino acid sequence and homology modeling of obtustatin, a novel non-RGD-containing short disintegrin isolated from the venom of *Vipera lebetina obtusa*. *Protein Sci.* **12** 366. PMID: 12538900.

**Marcinkiewicz *et al*** (2003) Obtustatin: a potent and selective inhibitor of  $\alpha_1\beta_1$  integrin in vitro and angiogenesis in vivo. *Cancer Res.* **63** 2020. PMID: 12727812.

**Brown *et al*** (2008) Angiostatic activity of obtustatin as  $\alpha_1\beta_1$  integrin inhibitor in experimental melanoma growth. *Int.J.Cancer* **123** 2195. PMID: 18712720.

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